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NEW SPECIES OF TENEBRIONID BEETLES FROM CENTRAL AND SOUTH AMERICA

(COL. HETEROMERA)

In these last years I had occasion to study a lot of Tenebrionids from Central and South America, among which the following new species were found.

Psammethicus larraini n. sp.

Long 11-15 mm, black, dull, smooth, furnished with a golden-yellow long pubescence on the legs and the third article of antennae. elytra much wider than pronotum, short ovate; legs very long, antennae long and thin.

Head: clypeus trapezoidal, slightly shining, reddish-brown, minutely and closely punctured, anteriorly regularly excavated, posteriorly well separated from the genae, suddenly narrowed to form a neck. The punctuation of forehead is strong, coarse and tending to confluence; antennae long and thin, IV article longer than the three successive united.

Pronotum narrower than the head, longer than wide, at the apex much wider than at the basis; sides regularly restricted from the apex to basis, sinuate a little before the basis. Anterior angles very prominent and acute, hind angles subacute, apex and basis bisinuate; sides not margined, but very slightly emerging and scarcely arisen. All the surface of pronotum granulated, with small granules perfectly contiguous. Longitudinal carina interrupted a little before the basis and then present, though small, up to the basis.

Elytra ovate, very narrow at the basis, which is slightly narrower than the basis of pronotum, ovate up to the apex; this is rather truncate, obtuse, slightly subcaudate. Elytra convex, internally perfectly

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flat, bicostate; one rib internal, one marginal; the internal nearer to the marginal one than to the sutura. The two internal carinae at the basis are reflected so to join in a unique carina along the basis of the elytra. Scutellum not visible. At the apex the internal carinae are very near and parallel up to the margin of the apex. At the sides the marginal carina ends just a little before the internal one. All the surface of elytra furnished with a minute granulosity rather close though scarcely visible, more pronounced on the lateral part (i.e. between internal and marginal carinae). The granules are a little stronger towards the apex.

Ventral surface densely punctured, a little shining. Prosternum with intercoxal process perfectly triangular, pointed, shining, a little sunken in the middle; the point extended caudally and then suddenly declivous. Meso- and metasternum very short, closely and coarsely punctured. Urosterna characterised by a small and close granulosity definitely coarser in the intercoxal process present between the hind coxae. Last urosterna shining but very closely punctured.

Legs: both dorsal and ventral surface strongly and closely punctuate, on the ventral surface the punctuation, which contrasts with the shining surface, is asperate, partially aciculate, what is an unusual feature in Tenebrionids. Tarsi slightly thicker in ♂. Golden pubescence more abundant in ♂.

Locus classicus: Northern Chile, Alto Patache, 860 m, leg. H. Larrain, 15 specs. Holotypus and one paratypus preserved in the Museo Civico di Storia Naturale "G. Doria" in Genova (Italy); 13 paratypi in Author's collection.

The new species reminds *P. pilipes* Guérin from Copiapo (Chile) and *P. loksai* Kaszab from Prov. de Tarapaca, Chile, because of long and dense golden pubescence on legs and antennae.

Scotobius larraini n. sp.

Belonging to *brevis-brevipes-vulgaris* group.

Long 12-15 mm; small convex, black, very slightly shining, especially on the pronotum.

Clypeus anteriorly slightly concave, all surface of clypeus and forehead densely and coarsely punctured. Clypeus separated from forehead by a groove not very incised; genae well pronounced, eyes small, transverse, almost concealed between genae and neck. Antennae very short, with articles practically all of the same width, transverse.

Pronotum widest at the midth of its length, regularly rounded up to the anterior angles and up to the hind angles, before which it is slightly sinuate. Hind angles acute and in some specimens emerging at the sides. Punctures relatively small, irregularly scattered on the disk, only scarcely close towards the basis at the sides. At the basis in the middle a depression is clearly visible, laterally delimited by a scarcely raised circular zone, a feature present also in other species of the genus. Pronotum clearly separated at the basis from the elytra, which show no trace of humeri. Apex much wider than the basis, truncate, gently bent at the sides towards the anterior angles. Pronotum well emarginated only at the sides, which are somewhat emerging.

Elytra perfectly oval, narrowed in the same manner towards the basis and the apex. Elytra only near the sutura punctato-striate and rather flat, while the interstriae are gradually raised so to constitute some ribs, continuous up to the apex.

Prosternum very short, slightly prominent between the two coxae where it is a little excavated. Meso- and metasternum short, shining, punctuate. Urosterna rather shining, I urosternum scarcely punctured; towards the end of abdomen punctuation more strong and evident, with a tendency to constitute some wrinkles. This character seems to be rather variable.

Anterior tibiae slightly dilated towards the sides and the apex, flat and a little excavated before the lateral margin. Metatarsi with the last article as long as the precedent united, as in *S. fallax* Kulzer, 1966.

Locus classicus: Northern Chile, Alto Patache, South of Iquique, 860 m, leg. H. Larrain, 15 specs. Holotypus in the collection of the Museo Civico di Storia Naturale "G. Doria" in Genova (Italy); 14 paratypi in Author's collection.

The species seems to be exclusive of this peculiar ecological climatic situation, characterised by a typical fog oasis, at 800 m of altitude, isolated in an arid, subdesertic region, near the Pampa of Tamarugal. It differs from *S. brevis* Phil. because of the sides of pronotum not crenulated and hind angles of pronotum emerging; it differs from *S. brevipes* Waterh. from Copiape, coast of Antofagasta (Chile) because of sides of pronotum not crenulated, hind angles of pronotum strongly emerging and clypeus with a concave margin; lastly it differs from

S. vulgaris Guér. from Peru (Lima, Huacho and Canete) because of the concave margin of clypeus.

Kulzer 1955 (p. 449) does not describe the anterior margin of clypeus in *S. brevis,* neither in the text nor in the dichotomic key; he saw only two specimens from Arica (Chile) and Mollendo, Lima (Peru).

Scotobius patachensis n. sp.

Near *tristis-rossi* group, but different because of elytra much elongate and anterior angles of pronotum pointed, different from *gebieni* Kulz. because of elongate elytra.

Long 16 mm, near *S. larraini* n. sp., but larger, elytra longer, almost parallel sided, head shorter and more transverse, less nitid, pronotum less cordiform.

Head transverse, sides from clypeus to genae perfectly straight, clypeus a little more concave than in *larraini*, genae less prominent, eyes more concealed than in *larraini*, surface with a very close and coarse punctuation, antennae shorter and thicker.

Pronotum less cordiform than in *larraini*, a little more convex, posterior angles rectangular, never emerging.

Elytra ovato-elongate, less flat than in *larraini*, striae punctuate, punctuation very evident and rather close, interstriae convex, tending to constitute ribs, with exception of the first two juxtasutural interstriae. Ribs continuous up to the extremity of the elytra. The punctuation of the first interstriae is irregular and close, different from *S. larraini*, where it is rather fine and regular.

Prosternum and mesosternum very short, closely and rather strongly punctuate, intercoxal process of prosternum narrow, posteriorly a little elevate and then brusquely declivous. Metasternum short and shining, with strong scattered punctures a little closer towards the sides. Urosterna shining with scattered punctures, some of which very strong, from II onwards tending to form longitudinal wrinkles. Intercoxal appendix of I urosternum perfectly triangular, pointed, a little arisen between the two coxae.

Legs short and thick, the outer edge of meso- and metatibiae very evidently denticulate, protibiae much more dilated than in *S. larraini*.

Ventral surface of legs strongly though not closely punctured, the surface of meso- and metatibiae very evidently denticulate as in no other species of *Scotobius* known to me.

Locus classicus: Northern Chile, Alto Patache, South of Iquique, 860 m, living together with *S. larraini*, leg. H. Larrain, 4 specs. Holotypus and one paratypus are preserved in the Museo Civico di Storia Naturale "G. Doria" in Genova (Italy); two paratypi in Author's collection.

Systematically the new species is near to *S. larraini*, with which it shares the same ecological requirements, i. e. presence of a high degree of humidity compared with other species of *Scotobius* of North Chilean desert (Atacama Desert).

Praocis baloghi n. sp.

Only with some doubts this new species is attributed to the subgenus *Anthrasomus* Guér. because of the form of hind angles of pronotum only slightly acute, in one of the two specimens emerging a little, so that a clear distinction from *Postpraocis* Kulzer is not possible. The lack of a true lateral margin of the elytra and the presence of two very low ribs on each elytron, together with the scarce long hairs at the sides of elytra (probably rarefied because of a bad conservation of the material) advises at the present stage of knowledge of systematic of genus *Praocis* Esch. to attribute the species to the subgenus *Anthrasomus*, known from Central Chile.

Middle size, long 7,5-8,5 mm, convex, elytra with almost parallel sides, very convex, smooth, not quite dull.

Head small, not very transverse, narrowing gradually from genae to anterior margin of clypeus; eyes small, visible beyond the genae, well emerging at the sides of the head. Clypeus separated from the forehead by a small, short, transverse groove, surface of head smooth but for the presence of a few punctures rather strong, scattered on forehead, a little closer on the clypeus. The latter is flat, with a somewhat incised margin, the forehead is convex. Antennae very short, gradually wider towards the apex.

Pronotum transverse, convex in perlateral sense, with perfectly rounded sides, narrowing from basis to apex, whit is much narrower than the basis. Apex concave with subacute anterior angles, basis slightly bisinuate with subacute though not emerging hind angles. Margins well visible, a little more expanded towards the basis, what seems a characteristic of the new species. Punctures very irregular, scarce, almost absent on the median line, smooth, closer towards the sides. Surface subnitidous.

Elytra oval, short, sides only partially parallel, gradually narrowed towards the extremity, which is not pointed. Convex (in perlateral sense) with an irregular coarse punctuation, though not closed, and with two little raised carinae, nitid, going from the basis to the hind 2/3,where they tend to confluence, before the extremity, with the carina which signs the outer (apparent) margin of elytra. Here some scattered hairs very long, golden, are visible (probably the rest of a richer pubescence).

Legs: protibiae a little bent, strongly dilated exteriorly before the apex, denticulate all through their length, the teeth very closed; meso- and metatibiae normal, regularly dilated towards the apex, tibiae particularly long.

Ventral surface: prosternum with few scattered coarse punctures; propleurites with a coarse scattered punctuation, closer towards the sides and posteriorly; intercoxal process dilated in a lanceolate point a little acuminate at tip, then brusquely truncate. Meso- and metasternum short, furnished with some punctures towards the sides; metasternum punctuate also medially; mesosternum a little prolonged in an intercoxal triangular process. Urosterna smooth, only the I urosternum medially with some scattered coarse punctures. Last urosternum closely and rather coarsely punctured, the punctures tending to confluence. I urosternum with a very wide, rather rounded intercoxal process, furnished with a few scattered punctures.

Femurs furnished with some scattered coarse punctures, closer only on profemurs, with some scattered golden hairs very characteristic. Tibiae furnished with a series of thick spinulae on exterior margin, on protibiae thorny, extended from basis to apex; meso- and metatibiae furnished at the apex with a black, short point on the exterior margin.

Locus classicus: Bolivia, Copacabana (La Paz), 3850 m, 26-27. XII.1966, leg. Balogh, Mahunka et Zicsi (Soil Zool. Expedition), 2 specs. Holotypus preserved in the Museo Civico di Storia Naturale “G. Doria” in Genova (Italy); paratypus in Author's collection.

Praocis silvestrii n. sp.

Middle sized (6 mm), short, rounded especially posteriorly, convex both in perlateral and cranio-caudal sense; black, slightly shining; antennae long, dark ferrugineous.

Head transverse, clypeus distinctly separated from the forehead by a narrow incision, slightly concave towards the clypeus. Genae slightly uprising, above the insertion of the antennae. Eyes well emerging at the sides of the head. Surface of the head smooth, that of forehead a little shining.

Pronotum very transverse, scarcely narrower than elytra, with the sides scarcely rounded, brusquely narrowed towards the apex, which is much narrower than the basis. Apex truncate, continuous at the sides with the anterior angles, obtuse but well prominent At the sides a groove is very pronounced, slightly uprising before the margin, more than in *P. pubescens* Phil. Basis deeply bisinuate, hind angles acute and prominent. practically continuous (seen from above) with the margin. of elytra, which show no humeri. Surface of pronotum shining, with an extremely minute and close punctuation at the sides, tending a little to form some striolae.

Elytra short, widest a little beyond the basis, then gradually and gently narrowed up to the extremity. 0n each elytron a carina, not acute, is present on the anterior half, not far from the sutura, shining, with a small shallow concavity between it and the sutura. A narrow carina is present near the external margin, reaching the hind 2/3 of the elytra. This carina is constituted towards the basis by small little distinct granules. All dorsal surface smooth, shining only on the disc, especially near the carinae. Seen from above, the new species recalls a little (especially because of the two carinae and the sides of pronotum, distinctly margined) *Praocis sellata topali* Kaszab (1964, p. 359, fig. 2).

Legs short, normally built, only protibiae and mesotibiae with a tooth, more evident on protibia, at the apex on the external side.

Prosternal process lanceolate, rather narrow, somewhat emerging at the tip, and then brusquely truncate. Meso- and metasternum short. All ventral surface smooth subnitidous, only propleurites with a thin punctuation forming longitudinal striolae. Ventral surface of femurs and tibiae shining, furnished with a rather close and strong punctuation, much stronger than in *Praocis (Postpraocis) larraini* of Patache, Northern Chile.

Locus classicus: Argentina, Santa Cruz, Patagonia, 1900, leg. F. Silvestri, 1 spec. (collected between the 5th and the 7th camps of the Silvestri expedition). Holotypus preserved in the Museo Civico di Storia Naturale "G. Doria" in Genova (Italy).

Praocis (Postpraocis) larraini n. sp.

Short (6,5-9,0 mm), very convex, broad, sides regularly rounded from head to hind extremity of elytra. Elytra very convex, rather brusquely declivous towards the extremity. Black, a little shining on all surface, perfectly glabrous.

Head transverse, semicircular, sides regularly rounded from clypeus to eyes, smooth or very minutely punctuate; clypeus anteriorly slightly concave, well separated from the forehead by a well incised suture continuous from one side to the other. Eyes normally developed; no neck visible. Antennae thin and very short.

Pronotum very short, strongly transverse; sides rounded from anterior to hind angles, the latter very acute and pronounced, so to include the basis of elytra. Anterior angles rounded but pronounced, apex sinuate; basis very deeply bisinuate. Pronotum margined only at the sides. Surface minutely and densely punctured, the punctuation is only a little stronger towards the sides.

Elytra convex, widest only a little beyond the basis, then regularly rounded up to the extremity, which is only a little prolonged and less convex than the rest of the elytron. Three ribs are well developed on each elytron, rather broad and perfectly shining, equidistant; the first rather distant from the sutura, so that a broad juxtasutural surface is present, flat and rather densely, finely punctured, only in the hind half with a trace of carina, quite smooth. A fourth rib is present between the first and the second ribs, but it does not reach the basis or the extremity of the elytra. Spaces between the ribs unpunctate, dull. Falsae epipleurae (reflected part of elytra) very broad, densely punctured, punctuation asperate. Epipleurae very narrow, gradually thinner towards the hind extremity.

Ventral surface shining. Prosternum and mesosternum punctuate though not densely; metasternum and urosterna smooth. Prosternum in profile regularly convex from its anterior margin; intercoxal process well developed prolonged beyond the coxae and then brusquely truncate. Mesosternum as long as the metasternum, the latter is perfectly smooth, at the hind margin incised in the middle so to receive the point of the intercoxal process of I urosternum. Urosterna smooth, I urosternum prolonged in a lanceolate, rather narrow, intercoxal process. Ventral surface of legs punctured, the punctuation tending to be asperate, scattered on femurs, very close on tibiae.

Locus classicus: Northern Chile, Caraguano Highland of Iquique, leg. H. Larrain, 7 specs. Holotypus and one paratypus in the Museo Civico di Storia Naturale "G. Doria" in Genova (Italy); 5 paratypi in Author's collection.

The new species belongs to the subgenus *Postpraocis* Kulzer, though the elytra in some specimens are not exactly rounded at the extremity, as it is said by KULZER 1958 in his key of subgenera (pag. 12). At page 39 however in the key of species Kulzer writes for *P. aenescens* "hinten weniger verrundet".

It should be near to *P. costatula* Sol., known from Santiago de Chile, from which it is clearly distinguished for the presence of only 3 (or 4) ribs on the elytra and for a clear clypeal furrow.

The distribution of the subgenus (though artificial, based only on phenetic characters) includes Copiapo, Huasco, Atacama, Coquimbo, Santiago, Santa Rosa (Chile), El Canelo Santiago, Las Valdes (cord. SE of Santiago), Illapel, Concepcion, Llanos "Chimba Ovalle", Cordoba, Salta, Catamarca, Nacimiento, La Arica (Jujuy, 2400 m), Lever, Antofagasta (4100 m), Tacora (Arica), Tarapaca (4085 m) and Ligna (Chile, at 32°,27' lat. South).

Peneta bordoni n. sp.

Middle sized (6,5-8 mm), reddish-yellow, shining, smooth, very convex though less than *P. meridensis*; horns of the head more erect, little or not at all bent backwards.

Head narrower than pronotum; clypeus gently degraded from vertex to the anterior margin, very little elevated, with a punctuation finer, compared with that of *P. meridensis*, extended also towards the vertex; the latter is smooth, shining. Horns subdivided in two branches, of which the hind one is short and horizontal compared with *P. meridensis* (Figs. 1, 2, 3, 4). Ratio height of head/height of eye 0,44-0,5 (before the insertion of the horn), so that eye is smaller than in *P. meridensis*.

Pronotum transverse, very convex, perfectly smooth and shining (specular), convex both in perlateral and cranio-caudal sense. Also in this species there are two tubercles at the sides of pronotum, one beyond the other, but at their sides there is only a feeble impression near the margin of the pronotum. Sides gently rounded, going from the anterior angle -very pronounced, emerging as a tooth- up to hind angles, obtuse.

Elytra cylindrical, convex, with rounded extremity, recalling very much some species of the palearctic genus *Aphodius* (coprophagous Scarabaeoidea). Striae less marked compared with *P. meridensis*, punctures never crenulate and never wide as an interstria. At the sides the interstriae are not very convex.

Mesotibiae furnished with very strong setae, longer in apical part, never transformed in a tooth; metatibiae with only a couple of setae or “spinulae” near the apex. All the ventral surface reddish-yellow, smooth and shining, here included the cephalic horns.

Mouth parts well visible; palpi (both maxillary and labial) and antennae very small; gulo-mentum well developed, smooth. Pro-, meso- and metasternum normally developed, smooth with exception for the propleurites, very minutely punctured. Intercoxal process of prosternum rather wide, lanceolate, prominent beyond the coxae and then brusquely truncate. Meso- and metasternum normal; mesosternum short, metasternum relatively long, with a median incision or fovea at the apex. Urosterna smooth, 1 urosternum prolonged in an intercoxal process triangular rather pointed between the metacoxae. Ventral surface of legs smooth and shining, particularly that of femurs, which are particularly dilated compared with the tibiae, thin.

Locus classicus: Venezuela, Andes of Mérida, El Paramito, Jajì, 2500 m, 4.III.1978, leg. C. Bordon, 2 specs. (holotypus and paratypus); Andes of Mérida, La Mucuy, (north of the River Chama), 3000 m, 13.VIII.1976, leg. C. Bordon, 2 specs. (paratypi). Holotypus preserved in the Museo Civico di Storia Naturale "G. Doria" in Genova (Italy); 3 paratypi in Author's collection.

It must be underlined that 3000 m is the highest elevation at which a species of *Peneta* has been so far found: this elevation is lower only to the height reached by the genus *Uloma* (Ulomini) in Meso-America (Guatemala: *U. divergens* Champ.), at 3300 m (Champion 1884-93, p. 155).

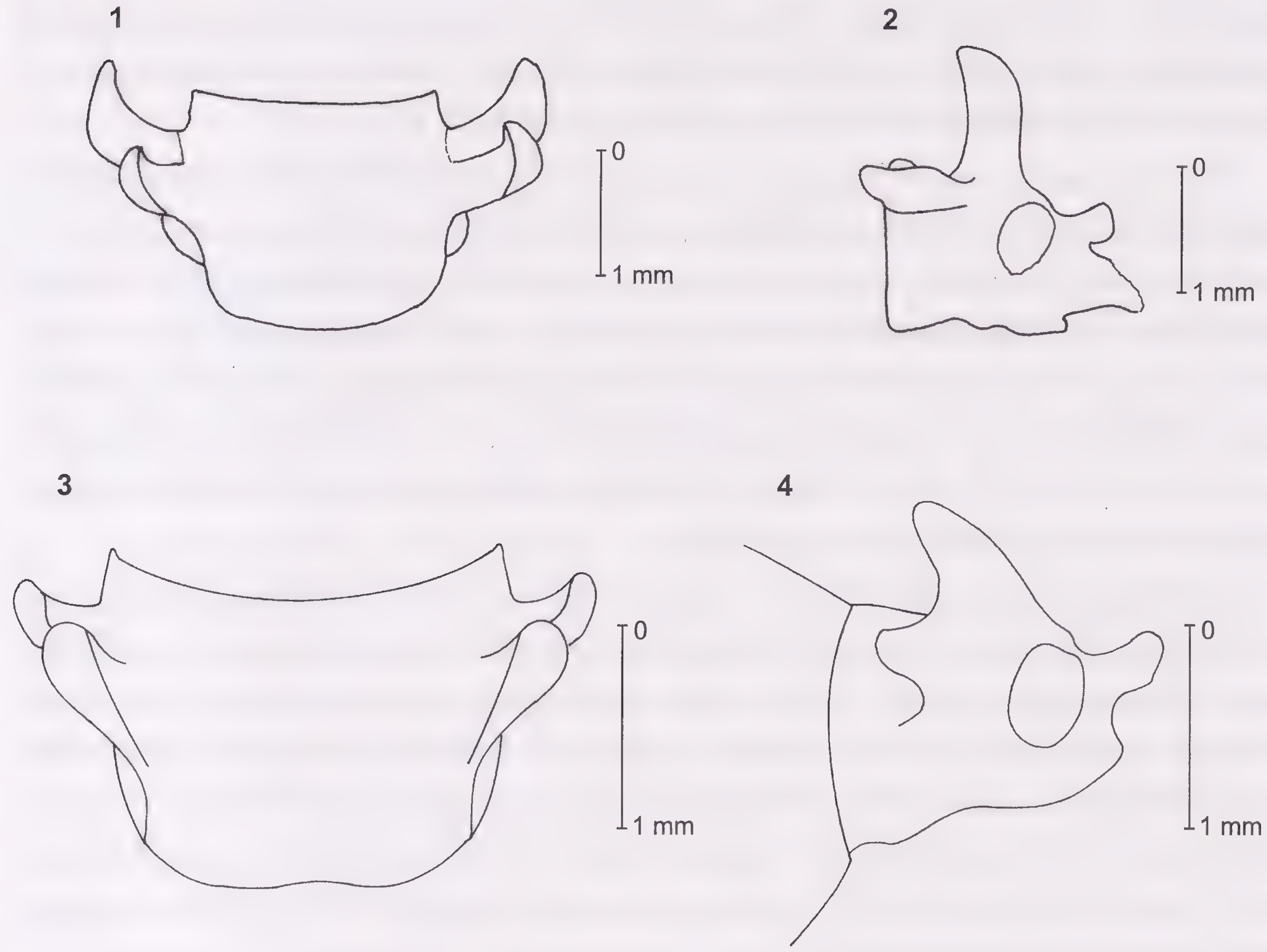

Fig. 1-4 - fig. 1: Head of *Peneta bordoni* n. sp., from La Mucuy, from above; fig. 2: the same of fig. 1, in profile; fig. 3: Head of *Peneta bordoni* n. sp., from El Paramito, from above; fig. 4: the same of fig. 3, in profile.

Peneta meridensis n. sp.

Middle sized (9 mm), shining, black with an exception for legs, dark ferrugineous, with lighter femurs; very convex, subcylindrical (recalling some species of palearctic coprophagous Scarabaeoidea, as for instance *Aphodius* (s.l.) *fossor* (L.) of the Alps), a little similar to *Peneta bordoni*, with which it lives in some localities on the Venezuelan Andes.

Head included the horns wider than the thorax, clypeus very large, reaching almost the vertex, from which it is separated by a transversal incision; clypeus excavated in the middle, with the anterior margin uprisen, showing a close punctuation on the whole surface excepted the vertex. Horns subdivided in two branches of which the hind one is long and bent downwards, compared with *P. bordoni*. The anterior branch is bent backward (Figs. 5, 6). Eyes somewhat larger than in *P. bordoni*: ratio height of head/height of eye (before the insertion of horn)=0,6 whereas in *P. bordoni* it is =0,44-0,5.

Pronotum transverse, very much convex in both perlateral and cranio-caudal sense. Surface shining and smooth, at the sides of anterior part two very small tubercles emerge, one beyond the other, followed laterally by a depression reaching the anterior angles of pronotum, emerging towards the sides as a tooth, round tipped, very characteristic. Sides of pronotum, sinuated only beyond the anterior angles, are rounded up to the hind angles, obtuse. Basis narrower than the apex, and as wide as the basis of elytra.

Humeri scarcely visible, elytra subcylindrical, with parallel sides and rounded extremity; striato-punctate, with a very strong punctuation, crenulated, at the sides wide almost as the interstriae; the latter are convex at the sides. Legs: fore and mid legs dilated gradually from basis to extremity, furnished with long spines, larger towards the extremity and thicker on protibiae, where more than spines, we find true teethes, what is a characteristic feature of the genus; metatibiae normally developed.

All ventral surface smooth and shining. Pro-, meso- and metasternum normally developed; metasternum a little shorter than in *P. bordoni*. Prosternum not lanceolate as in *P. bordoni*, but dilated towards the coxae and then sharply acuminate in a short point, brusquely truncate in profile. Metasternum showing in the median line a fovea, greater than in *P. bordoni*, with lateral margins slightly raised, pad-like. Urosterna: I urosternum very little prolonged in an intercoxal process, short and triangular, not evident as in *P. bordoni*. All urosterna short, shining and smooth. Ventral part of legs smooth and shining, the femurs less swollen than in *P. bordoni*; tibiae thicker than in this species.

Locus classicus: Venezuela, Andes of Mérida, El Paramito, Jajì, 2500 m, 4.III.1978, leg. C. Bordon, 1 spec. Holotypus preserved in the Museo Civico di Storia Naturale "G. Doria" in Genova (Italy).

Peneta kaszabi n. sp.

Small (6,5-9 mm), black, with exception for antennae and legs, reddish-ferrugineous, shining, smooth, cylindrical as in some coprophаgous Scarabaeoidea of genus *Aphodius*, characterised by the presence on the anterior part of pronotum of two lateral tubercles, situated at the internal edge of a lateral excavation very pronounced, recalling a little *Peneta costaricensis* Gebien.

Head large, clypeus with no sign of separation of a forehead, practically extended up to the vertex, shining, with a minute punctuation scattered throughout, very little excavated in the centre. At each side of the head a huge laminar horn rounded at the tip is present, very slightly bent inwards (Figs. 7, 8); antennae almost concealed between head and anterior angles of pronotum.

Pronotum very transverse, convex only in perlateral sense, sides straight, so that basis is as wide as the apex, hind angles rectangular, gently obtuse, anterior angles acute, well prominent, almost pointed. Surface of pronotum shining and smooth. Anteriorly the pronotum is provided with two lateral tubercles, followed at the sides by an excavation which continues up to anterior angles of pronotum, a feature characteristic of this species. Pronotum entirely margined, the margin continues in the two anterior angles.

Elytra cylindrical, posteriorly rounded, convex, shining and smooth; punctato-striate, the striae regularly developed from basis to extremity, the punctures gradually larger from the sutura to the sides, finer towards the extremity. Interstriae smooth, flattened on the disc, gradually convex towards the sides, where they tend a little to be riblike. Legs straight, tibiae furnished on the side with a series of very large spiny teeth, less developed and more scarce on metatibiae.

Ventrally shining and smooth; prosternum with a very pronounced intercoxal process, rather wide up to the extremity, where it is gently declivous. Mesosternum normally developed, metasternum very long, convex, smooth, in the median part punctured rather coarsely at the sides. Urosterna little convex, smooth in the median portion, strongly punctured towards the sides. Ventral surface of legs smooth and very shining.

Locus classicus: Venezuela, Bàrbula, E.do Carabobo, Cordillera de la Costa, west of Lago de Valencia, 1460 m, 12.II.1964, leg. Joly, 1 spec. Holotypus in the Museo Civico di Storia Naturale "G. Doria" in Genova (Italy).

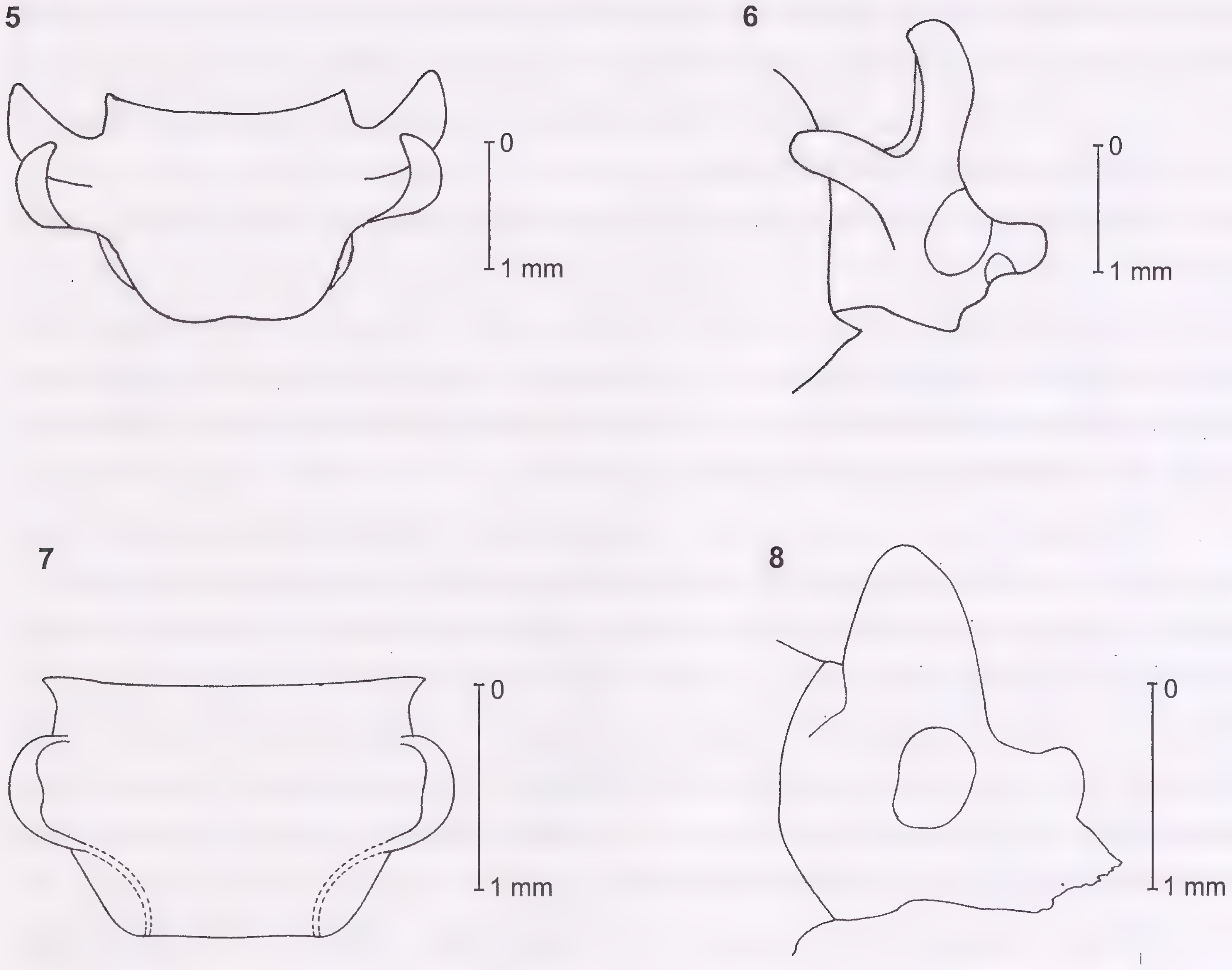

Fig. 5-8: fig. 5: Head of *Peneta meridensis* n. sp., from above; fig. 6: the same of fig. 5, in profile; fig. 7: Head of *Peneta kaszabi* n. sp., from above; fig. 8: the same of fig. 7, in profile.

Uloma bordoni n. sp.

Small (7,5 mm), reddish-ferrugineus, shining, very convex, almost cylindrical.

Head transverse, clypeus well divided by a sutura from forehead, this very transverse, separated by a sutura from the vertex; punctuation extremely minute. Antennae short, thin, VII-X articles transverse, XI rather long. Pronotum transverse, convex only in the perlateral sense, sides narrowed towards the apex sides near the basis almost straight, then gently bent towards the apex; anterior angles obtuse, apex truncate, hind angles rectangular; basis much wider than the apex, very slightly bisinuate; punctuation minute and regularly sparse, interspaces shining, margins well evident only at the sides.

Elytra almost cylindrical, convex in both senses, perlateral and cranio-caudal; sides perfectly parallel up to a little before the apex which is rather pointed. Striae well pronounced, with points rather large and evident, very contiguous, with exception for the apex, where both striae and points are feeble. Interstriae smooth, shining, a little convex, especially towards the sides.

Tibiae (♂) anteriorly bent, dilated at the extremity on the interior margin, furnished with some very characteristic teeth on the exterior margin; mesotibiae and a little less metatibiae bent at the basis.

Ventral parts: mentum very reduced so that all mouth parts are well visible; gula wide punctured, nitidous; prosternum closely punctured, intercoxal process very large, triangular but not pointed. Meso- and metasternum smooth and shining medially, at the sides with a characteristic punctuation, close and asperate. Mesosternum short, metasternum long. Mesosternum with a small point between the coxae; metasternum with a large intercoxal process triangular, well inserted between the mesocoxae. A median longitudinal incision is present in the caudal part. Urosterna, though shining, furnished with a rather close, asperate strong punctuation. I urosternum with a large intercoxal process, triangular and pointed, well penetrating between the metacoxae, more than in other species of *Uloma*. Ventral surface of femurs shining though furnished with strong, scarce, punctures, with the surface a little chagreened, an uncommon feature in genus *Uloma*.

Locus classicus: Venezuela, (D. F.), Parque Nacional del Avila, 1600 m, belonging to the cloud forest, El Papelon, 1.VI.1971, leg. C. Bordon. Holotypus preserved in the Museo Civico di Storia Naturale "G. Doria" in Genova (Italy).

Different from *U. ferruginea* Fairmaire collected at Colonia Tovar, 1798 m, situated at about 415 km West of Al Avila, because of lesser size (7,5 mm), hind angles of pronotum rectangular, surface of pronotum punctured, pronotum (♂) with no trace of a median anterior impression, protibiae at the apex with strong teeth (in *ferruginea* only denticulate) and anterior tibiae bent at the basis.

Uloma kaszabi n. sp.

Small (6 mm), cylindrical, very convex, brownish-black, shining; elytra black, mouth parts, antennae and legs ferrugineous.

Head very transverse, clypeus well separated from the forehead by a sutura; the forehead situated on a higher plane than clypeus as in no other species of *Uloma* so far known, forehead exhibiting two small elevated areas at the sides and, between them, another very small elevation, what probably points to the presence in the male sex of some horns or other structures. Eyes very large, emerging from the contour of the head, smooth, little, shining. Antennae short, towards the apex; all last articles transverse. Pronotum as wide as elytra, relatively long, gradually narrowed from basis to apex; sides practically straight, apex distinctly narrower than basis Anterior angles rounded, hind angles obtuse though a little emerging. Surface perfectly smooth and shining, specular. Both pronotum and elytra convex in perlateral as well as in cranio-caudal sense.

Elytra perfectly cylindrical, at the extremity almost rounded. Elytra striato-punctate, very finely in the median part, more strongly towards the sides. The punctures are very contiguous. Interstriae shining, perfectly flat near the sutura, very scarcely convex towards the sides.

Legs thin, flattened in dorso-ventral sense, what is more evident on protibiae (♀), gradually wider from basis to apex. This seems a rather peculiar feature in genus *Uloma*.

Ventral parts: shining, widely smooth. Propleurites with a close delicate punctuation slightly asperate. Intercoxal process very narrow, a little produced caudally. Procoxae densely punctured. Mesosternum short, metasternum long; the first is medially densely punctured, a little prolonged in a triangular intercoxal process; metasternum completely smooth and shining, specular, with a very large, triangular, intercoxal process densely punctured and a median, longitudinal, narrow incision on most of its surface. Urosterna with a rather dense, though fine, asperate and very characteristic punctuation, with exception for the last urosternum, almost smooth. I urosternum prolonged in an intercoxal process, triangular, not pointed at the tip. Surface of legs, with exception for protibiae, very particularly differentiated, smooth and shining.

Extremity of the aedeagus wide, truncate.

Locus classicus: Venezuela (D. F.), Quebrada Corral de Piedra, El Limon, 700 m, at the border with E.do de Aragua, Cordillera de la Costa, near Puerto La Cruz, 7.VI.1973, leg. C. Bordon, 1 spec. ♀.

Holotypus preserved in Museo Civico di Storia Naturale "G. Doria" in Genova (Italy).

U. venezuelensis Kulzer present at Rancho Grande (distant from El Limon about 30 Km westwards) is different for the same colour of thorax and elytra (homogeneous brownish-red).

Uloma ginesi n. sp.

Large (17 mm), rather elongate, sides of elytra subparallel; upper surface smooth, brown-blackish, nitidous; ventrally head, thorax and legs dark ferrugineous.. Convex only in perlateral sense, antennae short but rather strongly dilated toward the apex. Tibiae with well pronounced sexual characters.

Head transverse, clypeus well separated from the forehead by a kind of groove; forehead short, densely but minutely punctured, genae following the contour of' the clypeus. Eyes very large (as in few species of *Uloma*), almost globous, emerging so that they correspond to the maximum width of head. Antennae short but very distinctly dilated towards the apex, so that articles VI-XI are transverse. Pronotum relatively short, with an apex only a little narrower than the basis; sides perfectly rounded, with anterior angles a little rounded (though not prominent), apex only a little concave; hind angles obtuse, basis only scarcely bisinuate; on the anterior median part of pronotum, convex, a distinct fovea is present, reaching the margin of the pronotum. All surface shining, furnished with a very thiny scarce punctuation, rare on the fovea. Basis of pronotum scarcely narrower than that of elytra.

Elytra elongate, with parallel sides, narrowing towards the extremity, which is not pointed; convex in perlateral sense, steeply declivous at the extremity. Scutellum extremely reduced. Shining, striato-punctate, interstriae perfectly smooth, striae well incised from basis to extremity, with points very contiguous, small on the disc, gradually larger towards the sides. Interstriae only slightly convex on the disc, gradually more convex towards the sides, though they are never rib-like.

Legs (♂) very characteristic (fig. 9): protibiae strongly dilated on the internal (flexorial) side in a triangular process, then dilated at the extremity on flexorial side in a round structure, densely covered with a dense golden pubescence, extremely characteristic; exterior (extensorial) side furnished with a row of 6-7 short, thick triangular teeth.

Mesotibiae strongly bent, on exterior edge furnished with some very short teeth, especially towards the extremity; metatibiae normal.

Ventral surface smooth and shining; propleurites densely and minutely punctured, mesosternum and sides of metasternum (epimeres) densely and strongly punctured. Prosternum with a very narrow, linear intercoxal process, posteriorly a little prolonged and then brusquely truncate. Meso- and metasternum very short; mesosternum with a small intercoxal triangular process. Metasternum furnished with a longitudinal furrow. Cranially the metasternum is prolonged in a characteristic intercoxal process, rounded and large, touching the intercoxal process of mesosternum. Urosterna shining, smooth, only at the sides furnished with a fine punctuation tending to constitute longitudinal striolae; last urosternum only with an extremely minute, scarce, punctuation. Legs ventrally smooth and shining.

Apex of aedeagus at the extremity slightly dilated at both sides, so to form a T-like structure present also in other species of *Uloma*.

Locus classicus: Venezuela, Territorio Federal Amazonas, San Juan de Manapiare, m 200, 29.III.1958, 2 specs. ♂♂. Holotypus preserved in Museo Civico di Storia Naturale "G. Doria" in Genova (Italy); paratypus in Author's collection.

Probably it is a cognate species of *Uloma impressicollis* Cast., known from. Rio Grande do Sul, Rio de Janeiro, South Brasil and Bolivia. The protibiae recall a little *Uloma retusa* Fabr. which has a greater impression on the pronotum (♂) and generally is bicolour; the species is extended from Mexico to Argentina.

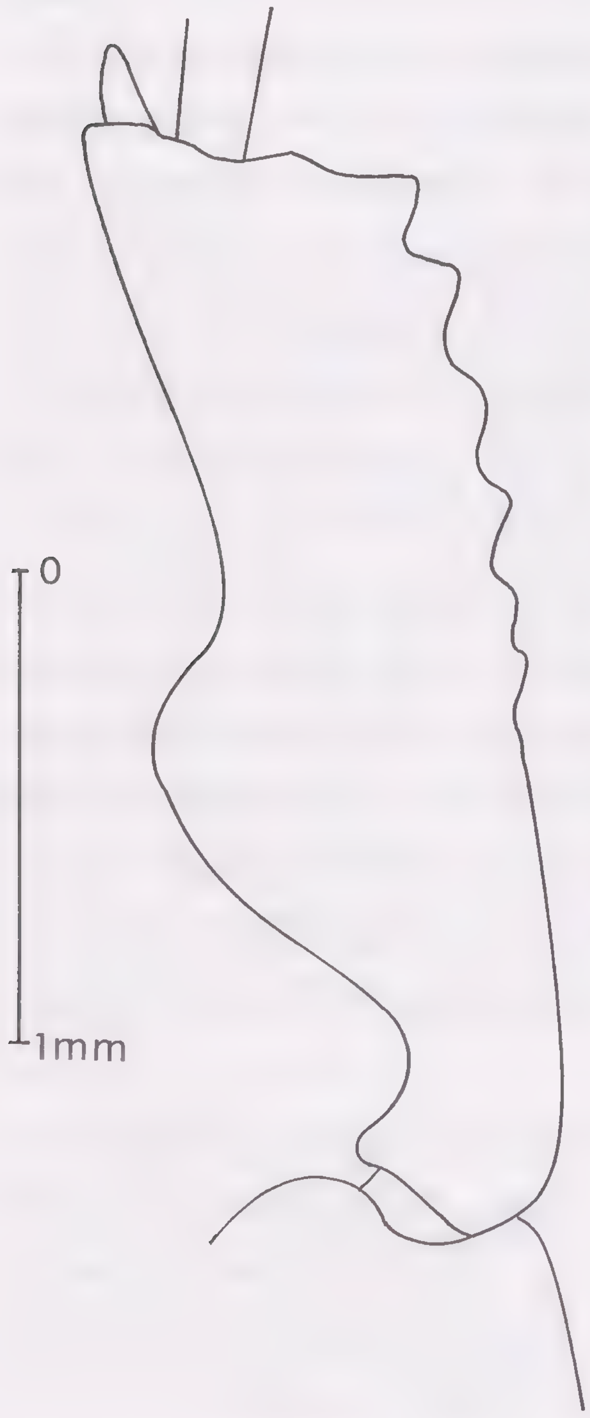

Fig. 9 - Anterior tibia (♂) of *Uloma ginesi* n.sp.

Uloma moensis sp. n.

Small (8 mm), from reddish-brown to dark brown, very shining, with antennae, mouth parts and legs reddish-ferrugineous; very convex, elongate, elytra with subparallel sides.

Head: clypeus well separated from forehead by a semicircular pad, going from one side to the other; eyes very large, transverse; neck well pronounced, nitidous. Antennae normally developed, last articles very transverse.

Pronotum longer than wide, apex only a little narrower than basis; sides more round in the cranial part, almost rectilineous in the caudal one, so that anterior angles are a little rounded, hind angles rectangular. Convex, especially in perlateral sense, smooth and shining; basis furnished with a median very evident impression.

Elytra elongate, shining, convex in both perlateral and cranio-caudal sense; punctato-striate much more evidently towards the sides; interstriae flat near the sutura, gradually convex towards the sides, where they are almost rib-like. Interstriae smooth and shining.

Ventral surface very smooth and shining, propleurites smooth with an exception for a very minute punctuation, present anteriorly at the sides. Meso- and metasternum short, smooth, urosterna quite smooth. Intercoxal process of prosternum very narrow, scarcely pronounced at its extremity, where it is brusquely truncate. Intercoxal process of the I urosternum short, slightly rounded between the coxae. Ventral surface of legs perfectly smooth, shining. Tarsi furnished on the ventral surface with some short, minute setae, golden, reddish-brown ,more pronounced on the anterior tarsi. Anterior tibiae (♀) regularly dilated towards the apex, furnished on external edge with some small spines (5 or 6) gradually larger towards the apex, not very evident.

Locus classicus: Cuba, Monte Ibenia, Moa (in the N-E part of Cuba), XII.1974. leg. J. de la Cruz, 2 specs. ♀♀ (ex collection O. Garrido, La Habana). Holotypus in the Museo Civico di Storia Naturale "G. Doria" in Genova (Italy); paratypus in Author's collection.

Otocerus bordoni n. sp.

Large (18 mm), very long, elytra with quite parallel sides, all upper and ventral surface extremely smooth; brilliant, upper surface metallic bronze, as in some species of *Camaria* (tribus Cnodalonini), ventral surface metallic green. Legs metallic green, only the upper surface of mid and hind legs (femurs) very slightly cupreous.

Head strongly transverse, clypeus distinct because much narrower than forehead, anteriorly truncate, aeneous; upper labrum somewhat yellowish, anteriorly truncate. Clypeus well separated from genae, medially excavated in a distinct fovea; antennae inserted on the very margin of eyes. The latter very large (♂) distinctly faceted all over their surface, separated by the forehead. This is narrow anteriorly and somewhat excavated, more dilated towards the basis where it is deeply excavated and furnished with a distinct punctuation. Maxillary palps well visible from above. Head restricted posteriorly in a scarcely visible neck. Antennae very regular, uniform all through their length, articles I-IV normal, V-VIII slightly dilated on anterior margin towards the apex, though they cannot be defined as serrate.

Pronotum scarcely wider than head, transverse, rectangular, basis and apex straight; apex practically as broad as the basis; anterior angles strong, a little acuminate; sides scarcely dilated towards the basis, up to the lateral angulosity characteristic of this genus, then almost rectilineous up to the hind angles. The latter are rectangular and slightly dilated before the basis of the elytra. Pronotum smooth, with three deep depressions, of which one is in the middle immediately beyond the apex, two laterally near the basis, without reaching it. Some punctures are present, not very distinct, around these impressions. At the basis a small, longitudinal, median incision is present, reaching the basis, surrounded by some well distinct though small punctures. Apex and basis furnished with a strong, rather elevated edge, very characteristic.Scutellum triangular, smooth, sides very little narrowed towards the mid of the length, then rectilineous up to a little before the apex, which is rather abruptly acuminate though not pointed. Elytra long with parallel sides, humeri rounded though well evident; furnished with evident regular rows of minute, short striae, transformed in true punctures only towards the basis and dorsally, to disappear towards the apex. The series of striae are more evident, almost coarse, at the sides, where the elytra become rather abruptly declivous. These stronger striae disappear completely in the last third of the elytra. All the surface between the rows of striae is perfectly smooth and shining, brilliant. In the anterior half of each elytron two shallow depressions are present near the sutura; in the hind part a series of very peculiar transverse incisions or wrinkles is present near the sutura on each elytron. The wrinkles are getting gradually larger towards the apex, without reaching it. This type of wrinkles is described by Champion 1884-1893, among his new species, exclusively in *C. impressipennis* (p. 383). Epipleurae very narrow punctured.

Ventral surface very brilliant, green; mentum very small, not concealing the mouth parts; prosternum and mesosternum with a very coarse and strong punctuation, tending to confluence; intercoxal process of prosternum extremely reduced, scarcely visible between the two coxae, caudally declivous and followed by a kind of longitudinal carina reaching the hind of broadly excavated between the two coxae, distant one from the other. Metasternum very long, perfectly smooth, shining, furnished with a median longitudinal feeble incision, only posteriorly deeper and dilated between the hind coxae, very contiguous one another. Urosterna smooth and shining, the first extremely characteristic, risen in a kind of triangular pointed eminence, protruding between the hind coxae, what seems a very unusual feature in Tenebrionid beetles. Ventral surface of legs smooth. Epipleurae rather wide at the basis, then brusquely narrowed towards the apex, where they are scarcely visible.

Locus classicus: Venezuela, Northern Andes, Cordillera de Mérida, La Mucuy, 2300 m, 13.VIII.1976, leg. C. Bordon, 1 spec. (♂). Typus preserved in the Museo Civico di Storia Naturale "G. Doria" in Genova (Italy).

I have the pleasure to name this new species after Carlo Bordon, one of the best (if not the best) collectors of Tenebrionid beetles of Venezuela in the last decades.

The new species belongs to a genus so far known only from Brazil and Guyana, besides Panama (up to 330 m), Nicaragua and Guatemala (up to 330 m). The locus classicus of the new species represents the highest locality at which the genus (of clear tropical origin) has been found. The presence of transversal wrinkles on the elytra is perhaps unique and may denote a noticeable degree of evolution of the new species, a wrinkle being present only in a species of Panama (*impressipennis* Champ.), not very distant from Northern Andes (600 km) separated by the basin of Rio Magdalena River.

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RIASSUNTO

Sono descritte le seguenti specie nuove di Tenebrionidi (Col. Heteromera), dell'America centrale e meridionale: *Psammethicus larraini*, Cile; *Scotobius larraini*, Cile; *S. patachensis*, Cile; *Praocis baloghi* Bolivia; *P. silvestrii*, Patagonia meridionale; *P. larraini*, Cile; *Peneta bordoni*, Ande del Venezuela; *P. merìdensis*, idem; *P. kaszabi*, Venezuela settentrionale; *Uloma bordoni*, idem; *U. kaszabi*, idem; *U. ginesi*, Amazzonia venezuelana; *U. moensis*, Cuba orientale e *Otocerus bordoni*, Ande del Venezuela, primo reperto del genere *Otocerus* in Venezuela. Per diverse specie si indicano i possibili rapporti con specie affini, già note, accanto a qualche caratteristica ecologica delle località di provenienza. si accenna all'effetto dell'isolamento geografico (od ecologico) sulla presenza di qualche specie nuova per il Cile e per il Venezuela.

SUMMARY

The following new species of Tenebrionids (Col. Heteromera) are described from Central and South America: *Psammethicus larraini*, Chile; *Scotobius larraini*, Chile; *S. patachensis*, Chile; *Praocis baloghi*, Bolivia; *P. silvestrii*, South Patagonia; *P. larraini*, Chile; *Peneta bordoni*, Venezuelan Andes; *P. meridensis*, idem; *P. kaszabi*, Northern Venezuela; *Uloma bordoni*, Northern Venezuela; *U. kaszabi*, idem; *U. ginesi*, Venezuelan Amazonian; *U. moensis*, Eastern Cuba and *Otocerus bordoni*, Venezuelan Andes (first Venezuelan record of the genus *Otocerus*). For several species the possible relationships with allied species are indicated, together with some ecological characteristic of localities. Comments are given about the effects of isolation in both Venezuelan Andes and Cordillera de la Costa (Venezuela) and Alto Patache (Chile).